APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,616	04/14/2005	Sebastiaan Antonius Fransiscus Arnoldus Van Den Heuvel	NL 021072	8187

24737　　7590　　02/06/2007		EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS		ARANI, TAGHI T	
P.O. BOX 3001			
BRIARCLIFF MANOR, NY 10510		ART UNIT	PAPER NUMBER
		2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)
	10/531,616	VAN DEN HEUVEL ET AL.
	Examiner	Art Unit	
	Taghi T. Arani	2131	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 April 2006_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _4/1/4/2005_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _2/23/06, 4/20/06_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-22 have been examined and are pending.

Information Disclosure Statement

2.   The information disclosure statement filed 4/20/2006 fails to comply with 37 CFR

1.98(a)(3) because it does not include a concise explanation of the relevance, as it is

presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable

about the content of the information, of each patent listed . It has been placed in the

application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a
> patent therefor, subject to the conditions and requirements of this title.

3.   Claims 21-22 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claims 21-22 are not limited to tangible embodiments. The terms "signal comprising"

and "Computer program product...." are not limited to tangible embodiments, instead being

defined as including both tangible embodiments and intangible embodiments (e.g.,

transmission medium). As such, the claims are not limited to statutory subject matter and are

therefore non-statutory.

Claim Objections

4.   Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form

for failing to further limit the subject matter of a previous claim. Applicant is required to

cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or

rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-10, 15-16, 18-20 rejected under 35 U.S.C. 102(e) as being anticipated by

US 2004/0123109 to Choi.

As per claim 1,18-19 and 21, Choi teaches a method, system, signature device and

signal for providing data integrity authentication and data protection, in which a set of data

fragments is protected by a signature (Abstract, Fig. 6 and associated text, paragraph 0045,

Fig. 1 and associated text) characterized in that each data fragment of the set comprises its

own unique identifier (Fig. 6, item 630, metadata digest information for selected fragment

data, see also paragraph 0045), the signature comprises references to the respective unique

identifiers of the data fragments of the set (paragraph 0059-0060, and 0077, where pointer

information indicating a relationship between each of the plurality of metadata (unique

identifier) fragment data and its corresponding metadata digest information and metadata

authentication signature are disclosed, see also paragraph 0077, where in the case of a SOAP

message –level authentication, authentication information is included in the header of a

SOAP message together with a pointer for part of the metadata contained in the body of the

SOAP message, see also paragraphs 0076 and 0078)) .

As per claim 2, Choi teaches the method according to claim 1, in which the set is

protected by multiple signatures, and in which the multiple signatures can originate from

different sources (Fig. 3, metadata authentication information comprising first, second, etc.

authentication signature information, see also paragraphs 0039-0040).

As per claim 3, Choi teaches the method according to claim 1, in which for each data

fragment a hash is generated and the hashes of the data fragments of the set are used to

compute the signature (paragraphs 0056-57 and paragraph 0040,where metadata container-

level container authentication information are hash values).

As per claim 4, Choi teaches the method according to claim 1, in which the data

fragments are expressed in XML (paragraphs, 0031, 0047 and 0076, where each metadata

transmission packet has a binary format such as binary XML format).

As per claim 5, Choi teaches the method according to claim 1, in which the data

fragments constitute TV-Anytime metadata (paragraph 0076).

As per claim 6, Choi teaches the method according to claim 1, in which the signature

is stored according to the xmldsig standard (paragraph 0074 and 0076, where authenticated

metadata fragment using SOAP message is disclosed).

As per claim 9, hoi teaches he method according to claim 1, in which the references

are also protected by the signature (paragraph 0077, where in the case of a SOAP message –

level authentication, authentication information is included in the header of a SOAP message

together with a pointer for part of the metadata contained in the body of the SOAP message,

see also paragraphs 0076 and 0078).

As per claim 10, Choi teaches the method according to claim 1, in which at least one

signature index file is added (paragraph 0044, se also claim 37).

As per claim 15, Choi teaches the method according to claim 4, in which the

signature is included in an XML document (Fig. 4 and Fig. 11 including associated texts).

As per claim 16, Choi teaches the method according to claim 4, in which the

signature is provided in a wrapper XML document, comprising the original XML data

document ((paragraph 0077, where in the case of a SOAP message –level authentication,

authentication information is included in the header of a SOAP message together with a

pointer for part of the metadata contained in the body of the SOAP message, see also

paragraphs 0076 and 0078).

As per claim 20, Choi teaches verification device (10) for verifying data integrity

authentication and data protection, the device being arranged to handle data fragments, the

device being arranged to verify a signature to protect a set of data fragments ((paragraphs

0051-0052, Fig. 7 and associated text, where the process of verifying the received metadata

container by generating the metadata digest information), characterized in that the device is

arranged to address each data fragment to be protected by a unique identifier included in the

data fragment, and the device is arranged to verify signature information comprising the

unique identifiers to refer to the data fragments of the set. (paragraphs 0053-0054).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to a
> person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

6.   **Claims 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi

as applied to claim 1 above, and further in view of "A method to process XML document

with preserving their representation ", IBM technical Disclosure Bulletin, October 2001, UK

(hereinafter, "IBM TD")

While Choi teaches standard description of metadata access and usage rights and

implementation thereof using XrML, XACMI, or SAMI (paragraph 0076), Choi does not

disclose but IBM TD discloses "a cannolization function...used before generating the

signature" and/or "transform function on a superset of data fragments (IBM, TD, page 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to incorporate the teachings of IBM TD into the method and system

of Choi's XML signature in order to avoid the problem caused by digital signature on XML

document and to create a standard or canonical representation before computing a digital

signature.

7.   Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi as

applied to claim 1 above, and further in view of US 2002/0038352 to Ashley.

As per claims 11 and 12, Choi discloses the method according to claim 1, except in

which the unique identifier in a particular data fragment starts with a unique identification of

an organization that generated the particular data fragment, in which the unique identification

is the DNS name of the organization.

However, in an analogous art, Ashley discloses that in TV-Anytime technology

(paragraph 0005) content identifiers (Fig. 4 and associated text, CRID's) include Authority

names (the organizations that create CRID's), each one uniquely identified by a name and

TV-Anytime standard uses the DNS name registration system to ensure that these names are

unique (see also paragraph 0030).

It would have been obvious to one of ordinary skill in the art to incorporate the

teachings of Ashley into the method and system of Choi's metadata integrity, authentication

and protection   to have the unique identifier start with a unique identification of the

organization that generated the particular data fragment such as the DNS name of the

organization in conformance with the TV-Anytime standard to allow a user to find the

content they want regardless of time and location where the content can be acquired (

paragraph 0004)

As per claim 13, Choi teaches the method according to claim 1, except in which the

reference is accompanied by a location indicator that indicates the location of the data

fragment the reference refers to.

However in and analogous art, Ashley (paragraphs 0004-0005, Fig. 4 and associated

text) teaches that in TV-Anytime technology a CRID in which a unique Authority name

embedded resolves the time and location of the content (see also paragraph 0029).

It would have been obvious to one of ordinary skill in the art to incorporate the

teachings of Ashley into the method and system of Choi's metadata integrity, authentication

and protection   in which reference is accompanied by a location indicator that indicates the

location of the data fragment the reference refers to, in order to allow a user to find the

content they want regardless of time and location where the content can be acquired

(paragraph 0004).

As per claim 14, Choi does not teach but Ashley teaches in which the location

indicator indicates the path through the data to the referenced data fragment (paragraph 0040-

0050).

The Examiner supplies the same rationale for the combination of Choi-Ashley as

provided in claim 13 above.

8.   Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi as

applied to claim 1 above, and further in view of US 2003/0093678 to Bowe et al. (hereinafter

"Bowe").

As per claim 17, Choi teaches the method according to claim 4, except in which the

XML signature provided in a separate XML document, referring to the original XML data

document.

However, in an analogous art, Bowe teaches XML signature provided in a separate

XML document, referring to the original XML data document (paragraph 0059, where signed

object can have a detached signature and when the signed object contains the signature and

the address of the data object).

It would have been obvious to one of ordinary skill in the art to employ the teachings

of Bowe in the method and system of Choi to have a separate   XML signature, referencing

the original XML data document so that compromise of one does no result in the generation

of unintended signatures (Bowe, paragraph 0034).

Conclusion

9.   Prior arts made of record, not relied upon:

Please see attached PTO-892.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Taghi T. Arani whose telephone number is (571) 272-3787.

The examiner can normally be reached on 8:00-5:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information

for unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access

to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

Taghi T. Arani, Ph.D.
Primary Examiner
Art Unit 2131
2/1/2007